

Notice of Allowability

Application No.

10/037,422

Examiner

Khanh Tran

Applicant(s)

NIECZYPOROWICZ ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/05/2006.
2. ☒ The allowed claim(s) is/are 3-6,9,10,13-16 and 19-26, which have been renumbered as set forth in the Office action.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date ____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

1. The Amendment filed on 01/05/2006 has been entered. Claims 3-6, 9-10, 13-16 and 19-26 are pending in this Office action.

2. Claims are renumbered as shown below:

Claims 3-6 renumbered as claims 1-4;

Claim 26 renumbered as claim 5;

Claims 9-10 renumbered as claims 6-7;

Claims 13-16 renumbered as claims 8-11;

Claims 19-25 renumbered as claims 12-18.

Response to Arguments

3. Applicant's arguments, see pages 10-11 in Applicants' Remarks, filed on 01/05/2006, with respect to claims 3-6, 9-10, 13-16 and 19-26 have been fully considered and are persuasive. The rejection of claims 3-6, 9-10, 13-16 and 19-26 has been withdrawn after Applicants amended claims.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

4. Regarding claim 3, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes and a first hop sequence to individual ones of a plurality of subscriber stations within a first cell" and "during transmissions within the first cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the first set of spreading codes according to the first hop sequence" and "assigning a hopped sub-set of a second set of spreading codes and a second hop sequence to individual ones of a plurality of subscriber stations within a second cell adjacent to the first cell" and "during transmissions within the second cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the second set of spreading codes according to the second hop sequences such that at any given time no two subscriber stations of the first or adjacent cell operate with the same spreading code".

5. Regarding claim 4, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes and a first hop sequence to individual ones of a plurality of subscriber stations within a first cell" and "during transmissions within the first cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the first set of spreading codes according to the first hop sequence" and "assigning a hopped sub-set of a second set of spreading codes and a second hop sequence to individual ones of a plurality of subscriber stations within a second cell adjacent to the

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first cell" and "during transmissions within the second cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the second set of spreading codes according to the second hop sequences such that at any given time no two subscriber stations of the first or adjacent cell operate with the same spreading code".

6. Regarding claim 5, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes and a first hop sequence to individual ones of a plurality of subscriber stations within a first cell" and "during transmissions within the first cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the first set of spreading codes according to the first hop sequence" and "assigning a hopped sub-set of a second set of spreading codes and a second hop sequence to individual ones of a plurality of subscriber stations within a second cell adjacent to the first cell" and "during transmissions within the second cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the second set of spreading codes according to the second hop sequences such that at any given time no two subscriber stations of the first or adjacent cell operate with the same spreading code".

7. Regarding claim 6, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of

spreading codes and a first hop sequence to individual ones of a plurality of subscriber stations within a first cell" and "during transmissions within the first cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the first set of spreading codes according to the first hop sequence" and "assigning a hopped sub-set of a second set of spreading codes and a second hop sequence to individual ones of a plurality of subscriber stations within a second cell adjacent to the first cell" and "during transmissions within the second cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the second set of spreading codes according to the second hop sequences such that at any given time no two subscriber stations of the first or adjacent cell operate with the same spreading code".

8. Regarding claim 9, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes and a first hop sequence to individual ones of a plurality of subscriber stations within a first cell" and "during transmissions within the first cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the first set of spreading codes according to the first hop sequence" and "assigning a hopped sub-set of a second set of spreading codes and a second hop sequence to individual ones of a plurality of subscriber stations within a second cell adjacent to the first cell" and "during transmissions within the second cell, periodically hopping amongst individual ones of the spreading codes of the hopped sub-set of the second set of

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spreading codes according to the second hop sequences such that at any given time no two subscriber stations of the first or adjacent cell operate with the same spreading code".

9. Regarding claim 10, claim is allowed over prior art of record because the cited references (Vimpari US 6,577,671, Ogren et al. US 6,795,689, Hasegawa US 5,432,814 and Nakajima et al. US 5,487,083) could not teach or disclose a method for operating a code division multiple access, comprising "wherein the step of periodically hopping changes from a currently used spreading code to a next spreading code at the symbol rate, or at a multiple of the symbol rate of the lowest spreading gain users.

10. Regarding claim 13, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes to individual ones of a plurality of subscriber stations within a first cell" and "further comprising circuitry that is responsive to transmissions within the first cell for periodically hopping amongst the hopped sub-set the first set of spreading codes according to the first hop sequence" and "said controller further coordinating with a base station second cell, adjacent to said first cell, by which a plurality of subscriber stations periodically hop amongst a hopped sub-set of a second set of spreading codes according to a second hop sequence, such that at any given time no two subscriber stations of either the first or second cell operate with the same spreading code".

11. Regarding claim 15, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes to individual ones of a plurality of subscriber stations within a first cell" and "further comprising circuitry that is responsive to transmissions within the first cell for periodically hopping amongst the hopped sub-set the first set of spreading codes according to the first hop sequence" and "said controller further coordinating with a base station second cell, adjacent to said first cell, by which a plurality of subscriber stations periodically hop amongst a hopped sub-set of a second set of spreading codes according to a second hop sequence, such that at any given time no two subscriber stations of either the first or second cell operate with the same spreading code".

12. Regarding claim 16, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes to individual ones of a plurality of subscriber stations within a first cell" and "further comprising circuitry that is responsive to transmissions within the first cell for periodically hopping amongst the hopped sub-set the first set of spreading codes according to the first hop sequence" and "said controller further coordinating with a base station second cell, adjacent to said first cell, by which a plurality of subscriber stations periodically hop amongst a hopped sub-set of a second set of spreading codes according to a second hop sequence, such that at any given time no two subscriber stations of either the first or second cell operate with the same spreading code".

13. Regarding claim 19, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes to individual ones of a plurality of subscriber stations within a first cell" and "further comprising circuitry that is responsive to transmissions within the first cell for periodically hopping amongst the hopped sub-set the first set of spreading codes according to the first hop sequence" and "said controller further coordinating with a base station second cell, adjacent to said first cell, by which a plurality of subscriber stations periodically hop amongst a hopped sub-set of a second set of spreading codes according to a second hop sequence, such that at any given time no two subscriber stations of either the first or second cell operate with the same spreading code".

14. Regarding claim 20, claim is allowed over prior art of record because the cited references (Vimpari US 6,577,671, Ogren et al. US 6,795,689, Hasegawa US 5,432,814 and Nakajima et al. US 5,487,083) could not teach or disclose a method for operating a code division multiple access, comprising "wherein the step of periodically hopping changes from a currently used spreading code to a next spreading code at the symbol rate, or at a multiple of the symbol rate of the lowest spreading gain users."

15. Regarding claim 21, claim is allowed over prior art of record after Applicants amended claim to include distinct features "assigning a hopped sub-set of a first set of spreading codes to individual ones of a plurality of subscriber stations within a first cell" and "further comprising circuitry that is responsive to transmissions within the first cell"

for periodically hopping amongst the hopped sub-set the first set of spreading codes according to the first hop sequence" and "said controller further coordinating with a base station second cell, adjacent to said first cell, by which a plurality of subscriber stations periodically hop amongst a hopped sub-set of a second set of spreading codes according to a second hop sequence, such that at any given time no two subscriber stations of either the first or second cell operate with the same spreading code".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Pham Cong Tran

04/02/2006

Primary Examiner KHANH TRAN